

### **REMARKS**

In response to the non-final Office Action mailed on October 23, 2003, Applicant respectfully requests reconsideration of all rejections in the outstanding Office Action in view of the following remarks. Claims 1-61, 64-71, 74-77, 80, and 81 are presently pending. Applicant submits herewith a Request for One-Month Extension of Time along with the requisite extension fee.

#### **I. Relevant Procedural History of the Instant Application**

Pending independent claims 1, 32, 55, 68, 69, and 76 recite or similarly recite "wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations." This limitation was added in an amendment submitted on July 17, 2002, as suggested by the Examiner to Applicant's representatives during an interview conducted on June 11, 2002, to overcome 35 U.S.C. § 102(b) and § 103(a) rejections based on U.S. Patent No. 5,682,604 to Kashi. *See* Interview Summary, June 11, 2002, ("The applicant agrees to amend the claim such as each remote has an unique time slot in the clear channel for monitoring to overcome the prior art"). Despite the Applicant following the Examiner's request, the Examiner responded by issuing a final rejection on the grounds that the subject matter of these independent claims was now obvious over Kashi in view of U.S. Patent No. 5,012,469 to Sardana. *See* Office Action, September 20, 2002. Applicant appealed this final rejection and submitted an Appeal Brief on June 20, 2003.

By way of the instant Office Action, the Examiner now takes the position that independent claims are not obvious over Kashi in view of Sardana, but rather obvious over Kashi in view of U.S. Patent No. 5,572,546 to Serfaty. *See* Office Action, October 23, 2003. The grounds for the newly asserted obviousness-type rejections again rely on Kashi as the primary reference as before, only replacing the former secondary references with newly cited art.

The instant rejections are summarized as follows:

Claims 1-3, 5-7, 15-19, 24, 25, 32-35, 40, 42-46, 50, 55-57, 61, 66, 68-71, 74, 76, 77, and 80 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of U.S. Patent No. 5,572,546 to Serfaty;

Claims 4, 26-29, 41, 51-52, 67, 75, and 81 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of Serfaty, and further in view of U.S. Patent No. 5,726,984 to Kubler;

Claims 8-11, 36, 37, and 60 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of Serfaty, and further in view of U.S. Patent No. 5,751,971 to Dobbins;

Claims 12-14, 38, 39, 58, and 59 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of Serfaty, and further in view of U.S. Patent No. 6,147,986 to Orsic;

Claims 20-22, 30, 31, 47, 48, 53, 54, and 64 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of Serfaty, and further in view of U.S. Patent No. 6,272,117 to Choi; and

Claims 23, 49, and 65 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered unpatentable by Kashi in view of Serfaty, and further in view of U.S. Patent No. 6,484,027 to Mauney.

Even in view of the inconsistent positions taken by the Examiner during the course of prosecution as noted above, the Examiner has repeatedly admitted on record that Kashi fails to disclose “wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations” as recited in all of the independent claims 1, 32, 55, 68, 69, and 76. *See, e.g.*, Office Action, October 23, 2003 (“Kashi fails to disclose a method and system for dividing a clear access interval into a plurality of time slot wherein each time slot is assigned to each mobile unit.”).

In the Examiner’s most recent attempt to cure this deficiency, Serfaty is introduced as allegedly disclosing “a system which including a upstream and downstream channel wherein the downstream channel and sensing time interval which is divided into a plurality of time slots wherein each mobile is assigned a time slot for sensing if the uplink channel is free in order to transmit the reverse signal to the receiving station (See col. 5, lines 9-32).” *Id.* at page 4. Based on this alleged teaching, the Examiner contends that since “Kashi suggests that each mobile station has a different time such time slot to sense free channel before transmitting a reverse signal” “it would have been obvious to one or ordinary skill in the art at the time of the invention was made to apply a method and system for dividing a sensing interval time into a plurality of time slots wherein each time slot is assigned to each mobile unit as disclosed by Serfaty’s system and method into Kashi’s system and method.” *Id.* “The motivation would have been to reduce the collision and improve the throughput of the system.” *Id.*

**II. Reliance on Kashi as the Primary Reference Renders the Obviousness-type Rejections Unsustainable**

The rejections of claims 1-61, 64-71, 74-77, 80, and 81 all require modification of Kashi in view of Serfaty, and for certain dependent claims as identified above, further modification in view of various other references. The Examiner's hypothesized modification of the primary reference, Kashi, is unsoundly based at least because actually carrying out such a hypothesis is in direct conflict with Kashi's teachings and/or would change Kashi's principle of operation. Moreover, the Examiner's motivation for combining Kashi and Serfaty is flawed. Lastly, Serfaty doesn't expressly teach what the Examiner contends.

Simply put, the Examiner can not overlook the reality that modifying Kashi to include a clear channel assessment interval as allegedly provided by Serfaty, or any other reference for that matter, changes the principle of operation of Kashi's self-sufficient system. *See* remarks, *infra*. Overlooking such is contrary to well-established patent law. Moreover, the Examiner can not overlook the truth that combining Serfaty's acknowledgement interval into Kashi's system is not only redundant, but contrary to Kashi's stated concern of wasting critical bandwidth (*see* Kashi, col. 1, ll. 62-67). *See* remarks, *infra*.

For at least these reasons, Applicant maintains that the rejections of claims 1, 32, 55, 68, 69, and 76, and all claims dependent therefrom, are improper. Accordingly, the Examiner is respectfully requested to withdraw the instant rejection of claims 1-61, 64-71, 74-77, 80, and 81.

**1. The Inclusion Of Serfaty's Acknowledgement Interval Would Change The Principle Of Operation Of Kashi**

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. M.P.E.P. § 2143.02 (citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

Kashi discloses the use of a complicated priority algorithm to allocate transmission time periods to remote stations. Kashi at col. 3, ll. 28-34 and Figs. 6 and 7. These transmission time periods are not fixed, but rather vary dependent on the priority calculations. *Id.* Serfaty discloses an acknowledgment interval featuring the use of time slots in which a unit waits to "see" that the channel is free to send an acknowledgement. Serfaty, col. 5, ll. 9-32. Even assuming, *arguendo*, that Serfaty (or any other reference) teaches a clear channel assessment interval, inclusion of a clear assessment interval fundamentally alters the principle (and only)

way Kashi's self-sufficient system allocates transmission time (bandwidth). A communication system can either implement Kashi's priority algorithm or a clear channel assessment interval as recited to allocate station transmission time, but not both. The Examiner has failed in his numerous attempts at rejecting the independent claims on obvious grounds to logically reconcile this issue. Because modifying Kashi's system to include a clear channel assessment interval, regardless of whether the latter is allegedly disclosed by Serfaty or any other reference, changes the principle of operation of Kashi, the instant rejections are unsustainable.

## **2. Alleged Support for Applying Serfaty to Kashi is Flawed**

Applicant notes that the Examiner's assumed motivation to combine Kashi and Serfaty in order "to reduce [collisions] and improve the throughput of the system" is inherently flawed. Serfaty discloses an interval wherein stations take turns in sending an acknowledgement to a unit, which has just previously transmitted data. Serfaty col. 5, ll. 9-32. Even assuming, *arguendo*, that Serfaty's acknowledgement technique serves as the recited clear channel assessment interval, inclusion of such would not reduce the number collisions, *i.e.*, interference, as the Examiner otherwise contends. Kashi's system employs a priority/polling allocation technique featuring the use of complicated priority calculations to allocate transmission time periods, during which a particular station can transmit under optimal conditions information without interference from other stations. Kashi at column 3, lines 28-34 and Figs. 6 and 7. Addition of a clear channel assessment interval is redundant to a priority/polling allocation technique and would not reduce transmission interference as this technique has already eliminated such. Moreover, time wasted by including another interval, *i.e.*, a clear channel assessment interval, would have a negative impact on the overall throughput of the Kashi's system as critical time for transmitting actual in-band data has been squandered for this redundant interval.

## **3. Kashi Clearly Teaches Away from the Examiner's Proposed Combination**

Kashi states that channel time is a critical, valuable, and scarce resource in a radio communications system. Kashi, col. 1, ll. 55-61. Where there are many remote transmitting stations in a single system, large amounts of overhead transmissions should be avoided. *Id.*, col. 1, ll. 62-67. Inclusion of Serfaty's acknowledgement interval in Kashi would create additional overhead and squander critical communication channel time, which are two results Kashi clearly attempts to avoid. *See* remarks, *supra*.

**4. Serfaty Does Not Expressly Teach a Clear Channel Assessment Interval**

The Examiner relies on the disclosure of Serfaty which states “[a] unit receiving a packet whose priority is set to j, where j is between 0 and N-1, will wait for exactly j period of times called “time slots” to see that the channel is free and immediately send its ACK back.” Serfaty col. 5, ll. 11-14 (Emphasis added.). Serfaty does not expressly disclose that the unit is actually “monitor[ing],” *i.e.*, sensing, the channel to determine whether it is clear. For example, one of ordinary skill in the art recognizes that each unit can assume the channel is free because acknowledgement packets are typically fixed in length and are identical for all units. In fact, referring to Figure 4, Serfaty indicates that the channel is not sensed clear by a unit, but rather the unit merely waits a number of time slots based on its priority and then immediately sends its acknowledgement. *See id.* at col. 5, ll. 14-19. Kashi taken in combination with Serfaty fails to teach or suggest all the limitations recited in independent claims 1, 32, 55, 68, 69, and 76.

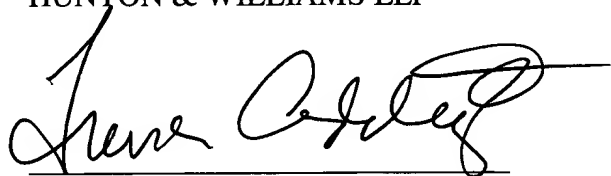
**CONCLUSION**

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. The appropriate fee for entry of this Reply is submitted in a Request for One-Month Extension of Time filed concurrently herewith and Applicant believes that no additional fee is required. Nevertheless, in the event that the U.S. Patent and Trademark Office requires a fee to enter this Reply or to maintain the present application as pending, please charge such fee to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

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